

10/540211

JC17 Rec'd PCT/PTO 20 JUN 2005

**AMENDMENTS TO THE CLAIMS:**

This listing of claims will replace all prior versions, and listings, of claims in the application:

**LISTING OF CLAIMS:**

1. (Original) A method for follow-up treatment of the contour of the surface of at least one optical lens, in particular a microlens which is made of glass or a glass-type material and which has a convex lens surface delimited by a circumferential line abutting on a plane section surrounding said circumferential line and which has a lens underside facing the convex lens surface, wherein along said circumferential line of the optical lens on said plane section is placed a means perfectly matching said circumferential line and at least laterally bordering said convex lens surface, said optical lens is heated to a temperature of at least the transformation temperature of said glass or glass-type material, pressure equalization prevails between said convex lens surface and said lens underside, and after a certain period of time, during which said optical lens undergoes said temperature treatment and subsequent cooling below said transformation temperature, said means is removed from said optical lens.
2. (Original) The method according to claim 1, wherein the temperature and the period of time of said temperature treatment are selected according to the degree of change of the surface contour.
3. (Currently Amended) The method according to claim 1 or 2, wherein a pressure acting on said convex lens surface is varied during said temperature treatment.
4. (Original) The method according to claim 3, wherein said pressure change is brought about by changing the gas pressure, respectively air pressure.

5. (Currently Amended) The method according to ~~one of the claims 1 to 4~~ claim 1, wherein said means is pressed with force firmly against said circumferential line.

6. (Currently Amended) The method according to ~~one of the claims 1 to 5~~ claim 1, wherein said optical lens is produced by means of a glass-flow process or by means of contactless hot stamping of a thermoplastic material and has as a result of said process an extremely steep elliptical gradient in the region of said circumferential line, and said temperature treatment is conducted in conjunction with said means bordering said circumferential line in such a manner that said extremely steep elliptical gradient is reduced or completely eliminated.

7. (Currently Amended) The method according to ~~one of the claims 1 to 6~~ claim 1, wherein said temperature treatment is conducted in conjunction with said means bordering said circumferential line in such a manner that the lateral geometric dimensions of said optical lens are retained.

8. (Currently Amended) The method according to ~~one of the claims 1 to 7~~ claim 1, wherein said optical lens is borne horizontally during said temperature treatment, i.e. the convex lens surface is raised above a horizontal plane.

9. (Currently Amended) The method according to ~~one of the claims 1 to 8~~ claim 1, wherein said means is brought into contact with said optical lens without wetting the surface.

10. (Currently Amended) The method according to ~~one of the claims 1 to 9~~ claim 1, wherein a one-piece continuous array-like microlens arrangement is provided, having a multiplicity of single optical microlenses, which are spaced apart, preferably equidistant, by plane sections, a means matching the arrangement and size of the circumference of the single microlenses is provided as a sort of template, which is placed at least partly on said plane sections and surrounds said

circumferential lines of said individual microlenses, and during said temperature treatment all said microlenses are heated uniformly and homogeneously.

11. (Currently Amended) The method according to ~~one of the claims 1 to 10~~ claim 1, wherein said temperature treatment occurs in such a manner that a reduction of said convex lens surface stems solely from the surface tensions acting along said convex lens surface, with the lens material being forced out of the regions of said exceedingly steep elliptical gradient on the convex-side into other regions of the lens body.

12. (Original) A device for follow-up treatment of the contour of the surface of at least one optical lens, in particular a microlens which is made of glass or a glass-type material and which has a convex lens surface which is delimited by a circumferential line abutting on a plane section surrounding said circumferential line, wherein a means is provided which is designed as a sort of template and has a cutout bordered by an edge which is flush with said circumferential line of said optical lens, and said cutout is otherwise designed in such a manner that said template can be placed on said plane section surrounding said circumferential line without touching said convex lens surface, and said means provides at least one opening opposite said cutout in such a manner that no closed volume occurs between said optical lens and said means after placing said means on said plane section surrounding said circumferential line.

13. (Original) The device according to claim 12, wherein said means is made of a material whose thermal expansion properties correspond to that of said glass or of said glass-type material.

14. (Currently Amended) The device according to claim 12 ~~or 13~~, wherein said means is designed as a type multiple hole template whose single cutouts are selected in shape, size and arrangement according to an array-like multiple microlens arrangement in such a manner that said multiple hole template comes in contact flush with said circumferential lines of said microlenses when said

multiple hole template is placed on said plane sections of said multiple microlens arrangement surrounding said single microlenses.

15. (Original) Use of the device for correcting the surface of at least one optical lens made of glass or a glass-type material in order to eliminate extremely steep elliptical gradients present at the edge region of said lens.

16. (Original) Use according to claim 15, wherein by means of temperature treatment of said optical lens on which a template-like means lies, the edge region is leveled using a reflow process in such a manner that a spherical or parabolic shaped lens cross section is obtained.

17. (Original) Use according to claim 16, wherein with a continuous reflow process, a hyperbolic shaped lens cross section is obtained.